

Aluminum agglomeration reduction in a composite pro particles

Combustion and Flame

161, 311-321

DOI: [10.1016/j.combustflame.2013.08.009](https://doi.org/10.1016/j.combustflame.2013.08.009)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Curing Viscosity of HTPB-Based Binder Embedding Micro- and Nano-Aluminum Particles. Propellants, Explosives, Pyrotechnics, 2014, 39, 755-760.	1.6	14
2	Pre-Stressing Micron-Scale Aluminum Core-Shell Particles to Improve Reactivity. Scientific Reports, 2015, 5, 7879.	3.3	27
3	Enhancing Micrometric Aluminum Reactivity by Mechanical Activation. , 2015, , .		5
4	Exploring mechanisms for agglomerate reduction in composite solid propellants with polyethylene inclusion modified aluminum. Combustion and Flame, 2015, 162, 846-854.	5.2	75
5	Energy release pathways in nanothermites follow through the condensed state. Combustion and Flame, 2015, 162, 258-264.	5.2	67
6	Al-Nanoparticle-Containing Nanofluid Fuel: Synthesis, Stability, Properties, and Propulsion Performance. Industrial & Engineering Chemistry Research, 2016, 55, 2738-2745.	3.7	67
7	A facile synthesis and efficient thermal oxidation of polytetrafluoroethylene-coated aluminum powders. Materials Letters, 2016, 167, 262-265.	2.6	41
8	Mechanisms and Microphysics of Energy Release Pathways in Nanoenergetic Materials. , 2016, , 65-94.		5
9	Agglomerates, smoke oxide particles, and carbon inclusions in condensed combustion products of an aluminized GAP-based propellant. Acta Astronautica, 2016, 129, 147-153.	3.2	61
10	Energetic Al/Fe ₂ O ₃ /PVDF composites for high energy release: Importance of polymer binder and interface. Macromolecular Research, 2016, 24, 909-914.	2.4	11
11	Reducing residue in aluminized fuel-rich propellant for Ramjets. , 2016, , .		0
12	Development of Polyurethane-Based Solid Propellants Using Nanocomposite Materials. Propellants, Explosives, Pyrotechnics, 2016, 41, 286-294.	1.6	12
13	Effect of mechanical activation of high specific surface area aluminium with PTFE on composite solid propellant. Combustion and Flame, 2016, 166, 203-215.	5.2	59
14	Encapsulated Nanoscale Particles and Inclusions in Solid Propellant Ingredients. , 2016, , 323-340.		1
15	Experimental investigation of the combustion products in an aluminised solid propellant. Acta Astronautica, 2017, 133, 136-144.	3.2	30
16	Effect of iron and boron ultrafine powders on combustion of aluminized solid propellants. Combustion and Flame, 2017, 178, 195-204.	5.2	63
17	Incomplete reactions in nanothermite composites. Journal of Applied Physics, 2017, 121, .	2.5	32
18	Attaining Hypersonic Flight with Aluminum-Based Fuel-Rich Propellant. Journal of Propulsion and Power, 2017, 33, 1207-1217.	2.2	14

#	ARTICLE	IF	CITATIONS
19	Metal-rich aluminum-polytetrafluoroethylene reactive composite powders prepared by mechanical milling at different temperatures. <i>Journal of Materials Science</i> , 2017, 52, 7452-7465.	3.7	32
20	Metal-based nanoenergetic materials: Synthesis, properties, and applications. <i>Progress in Energy and Combustion Science</i> , 2017, 61, 293-365.	31.2	289
21	Study of aluminum particle combustion in solid propellant plumes using digital in-line holography and imaging pyrometry. <i>Combustion and Flame</i> , 2017, 182, 225-237.	5.2	152
22	Aluminum agglomeration involving the second emergence of agglomerates on the solid propellants burning surface: Experiments and modeling. <i>Acta Astronautica</i> , 2017, 136, 219-229.	3.2	71
23	Effect of Organic Fluoride on Combustion Agglomerates of Aluminized HTPB Solid Propellant. <i>Propellants, Explosives, Pyrotechnics</i> , 2017, 42, 417-422.	1.6	21
24	On the combustion mechanisms of ZrH_2 in double-base propellant. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 32597-32604.	2.8	16
25	Microexplosions and ignition dynamics in engineered aluminum/polymer fuel particles. <i>Combustion and Flame</i> , 2017, 176, 162-171.	5.2	44
26	Tailoring burning rates using reactive wires in composite solid rocket propellants. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 2283-2290.	3.9	34
27	Enhancing ignition and combustion of micron-sized aluminum by adding porous silicon. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 2317-2324.	3.9	38
28	Mapping of Aluminum Particle Dispersion in Solid Rocket Fuel Formulations. <i>Springer Aerospace Technology</i> , 2017, , 673-688.	0.3	1
29	A mechanism for shattering microexplosions and dispersive boiling phenomena in aluminum-lithium alloy based solid propellant. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 2309-2316.	3.9	56
30	Trimethyl borate-treated polytetrafluoroethylene micropowders with improved hydrophilic and adhesive properties based on coordination bond theory. <i>Surface and Interface Analysis</i> , 2018, 50, 457-463.	1.8	3
31	Agglomerate Sizing in Aluminized Propellants Using Digital In-line Holography and Traditional Diagnostics. <i>Journal of Propulsion and Power</i> , 2018, 34, 1002-1014.	2.2	31
32	Estimating the Relative Energy Content of Reactive Materials Using Nanosecond-Pulsed Laser Ablation. <i>MRS Advances</i> , 2018, 3, 875-886.	0.9	19
33	Combustion Characteristics of Nanoaluminum Cloud in Different Atmospheres. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 129-138.	3.7	3
34	Investigations into the copper chromite particle size effect on the combustion characteristics of poly(vinyl-chloride) plastisol propellants. <i>Journal of Mechanical Science and Technology</i> , 2018, 32, 5973-5987.	1.5	3
35	Applying Mechanically Activated Al/PTFE in CMDB Propellant. <i>Propellants, Explosives, Pyrotechnics</i> , 2018, 43, 1105-1114.	1.6	15
36	Effect of paraffin wax on combustion properties and surface protection of Al/CuO-based nanoenergetic composite pellets. <i>Combustion and Flame</i> , 2018, 198, 169-175.	5.2	8

#	ARTICLE	IF	CITATIONS
37	Tuning the Reactivity of Metastable Intermixed Composite n-Al/PTFE by Polydopamine Interfacial Control. ACS Applied Materials & Interfaces, 2018, 10, 32849-32858.	8.0	126
38	Tuning the morphological, ignition and combustion properties of micron-Al/CuO thermites through different synthesis approaches. Combustion and Flame, 2018, 195, 303-310.	5.2	36
39	Preparation and characterization of mechanically activated aluminum/polytetrafluoroethylene composites and their reaction properties in high temperature water steam. Journal of Alloys and Compounds, 2018, 761, 24-30.	5.5	29
40	Ignition and combustion behavior of mechanically activated Al-Mg particles in composite solid propellants. Combustion and Flame, 2018, 194, 410-418.	5.2	66
41	Fluorine-containing oxidizers for metal fuels in energetic formulations. Defence Technology, 2019, 15, 1-22.	4.2	112
42	Effects of Ammonium Perchlorate Particle Size on the Aluminum Agglomeration in Primary Combustion of the Ammonium Perchlorate/Aluminum Binary Mixture with a High Aluminum Content. Energy & Fuels, 2019, 33, 9302-9308.	5.1	4
43	Altering Agglomeration in a Composite Propellant with Aluminum-Silicon Eutectic Alloy. Journal of Propulsion and Power, 2019, 35, 1048-1056.	2.2	9
44	Experimental study on the effect of non-spherical particles on steady combustion in nano-aluminized propellant in air. Materials Research Express, 2019, 6, 115054.	1.6	1
45	Fuel-rich aluminum-nickel fluoride reactive composites. Combustion and Flame, 2019, 210, 439-453.	5.2	18
46	Combustion of Aluminized Solid Propellants with Bimodal Oxidizer Particle Size Distribution. , 2019, , .		0
47	Thermal Analysis Techniques and Autoignition Testing for Solid Polymers: a Review. , 2019, , .		0
48	Spin coating preparation and thermal properties of metastable Al/PVDF energetic film with graphene. Materials Research Express, 2019, 6, 086415.	1.6	6
49	Tuning the reactivity and combustion characteristics of PTFE/Al through carbon nanotubes and grapheme. Thermochemica Acta, 2019, 676, 276-281.	2.7	16
50	A promising strategy to obtain high energy output and combustion properties by self-activation of nano-Al. Combustion and Flame, 2019, 204, 220-226.	5.2	80
51	Lithium-Perchlorate/Polyvinyl-Alcohol-Based Aluminized Solid Propellants with Adjustable Burning Rate. Journal of Propulsion and Power, 2019, 35, 512-519.	2.2	19
52	Confined flame propagation of Al/PTFE mechanically activated composites. Combustion and Flame, 2019, 203, 83-91.	5.2	31
53	Enhancing ignition and combustion characteristics of micron-sized aluminum powder in steam by adding sodium fluoride. Combustion and Flame, 2019, 205, 68-79.	5.2	23
54	Modified Micro-Emulsion Synthesis of Highly Dispersed Al/PVDF Composites with Enhanced Combustion Properties. Advanced Engineering Materials, 2019, 21, 1801330.	3.5	28

#	ARTICLE	IF	CITATIONS
55	Solid Propellant with Embedded Additively Manufactured Reactive Components. , 2019, , .		5
56	Hydrogen generation from hydrolysis of activated aluminum/organic fluoride/bismuth composites with high hydrogen generation rate and good aging resistance in air. Energy, 2019, 170, 159-169.	8.8	42
57	Aluminum agglomeration of AP/HTPB composite propellant. Acta Astronautica, 2019, 156, 14-22.	3.2	70
58	Comparison study of the ignition and combustion characteristics of directly-written Al/PVDF, Al/Viton and Al/THV composites. Combustion and Flame, 2019, 201, 181-186.	5.2	127
59	Properties of Agglomerate-Reduced Propellant Under Solid Rocket Motor Conditions. Journal of Propulsion and Power, 2019, 35, 352-358.	2.2	11
60	Nanoenergetic Ingredients to Augment Solid Rocket Propulsion. , 2019, , 177-261.		4
61	Effect of amide-based compounds on the combustion characteristics of composite solid rocket propellants. Arabian Journal of Chemistry, 2019, 12, 3639-3651.	4.9	67
62	Investigation of the ignition and combustion of compressed aluminum/polytetrafluoroethylene bulk composites. Journal of Thermal Analysis and Calorimetry, 2020, 139, 3013-3021.	3.6	14
63	The effect of sintering and cooling process on geometry distortion and mechanical properties transition of PTFE/Al reactive materials. Defence Technology, 2020, 16, 720-730.	4.2	21
64	Tuning the agglomeration and combustion characteristics of aluminized propellants via a new functionalized fluoropolymer. Chemical Engineering Journal, 2020, 382, 122987.	12.7	86
65	Study of the effect of interface properties on the dynamic behavior of Al/PTFE composites using experiment and 3D meso-scale modelling. Composite Interfaces, 2020, 27, 401-418.	2.3	3
66	Mechanism of the organic fluoride effect on the formation of agglomerates and condensed products in the combustion of aluminised solid propellants. Combustion Theory and Modelling, 2020, 24, 1-14.	1.9	9
67	Metastable intermixed Core-shell Al@M(IO3)x nanocomposites with improved combustion efficiency by using tannic acid as a functional interfacial layer. Chemical Engineering Journal, 2020, 384, 123369.	12.7	32
68	Distribution and multiplication of Ralstonia solanacearum strain race 1 biovar 4 in vegetable sweet potato cuttings. Journal of Phytopathology, 2020, 168, 36-46.	1.0	1
69	Improve the interfacial adhesion, corrosion resistance and combustion properties of aluminum powder by modification of nickel and dopamine. Applied Surface Science, 2020, 508, 144790.	6.1	21
70	Experimental Study of Aluminum Combustion in Solid Propellant by Using Photomicrography and Digital In-Line Holography. , 2020, , .		2
71	Three-dimensional spatial distributions of agglomerated particles on and near the burning surface of aluminized solid propellant using morphological digital in-line holography. Aerospace Science and Technology, 2020, 106, 106066.	4.8	24
72	Reinforced combustion of the ZrH2-HMX-CMDB propellant: The critical role of hydrogen. Chemical Engineering Journal, 2020, 402, 126275.	12.7	24

#	ARTICLE	IF	CITATIONS
73	Agglomeration and combustion characteristics of solid composite propellants containing aluminum-based alloys. <i>Combustion and Flame</i> , 2020, 220, 288-297.	5.2	79
74	Heat conduction and deflagration behavior of Al/PTFE induced by thermal shock wave under temperature gradient. <i>International Communications in Heat and Mass Transfer</i> , 2020, 118, 104834.	5.6	8
75	Study on the preparation parameters and combustion performance of Al/PTFE composites prepared by a mechanical activation-sintering method. <i>New Journal of Chemistry</i> , 2020, 44, 21092-21099.	2.8	11
76	Fabrication of Polytetrafluoroethylene Coated Micron Aluminium with Enhanced Oxidation. <i>Materials</i> , 2020, 13, 3384.	2.9	14
77	Laser-Induced Ignition and Combustion of Al-Mg Alloy Powder Prepared by Melt Atomization. <i>Propellants, Explosives, Pyrotechnics</i> , 2020, 45, 1645-1653.	1.6	15
78	New insights into the reactionary zones excited-state programming by plasma-acoustic coupling mechanism for the next-generation small satellite solid propulsion systems. <i>Journal of Physics: Conference Series</i> , 2020, 1507, 022006.	0.4	2
79	Combustion of fluoropolymer coated Al and Al-Mg alloy powders. <i>Combustion and Flame</i> , 2020, 220, 394-406.	5.2	27
80	Control the combustion behavior of solid propellants by using core-shell Al-based composites. <i>Combustion and Flame</i> , 2020, 221, 441-452.	5.2	51
81	Reactivity of Al/CuO Nanothermite Composites with Fluoropolymers. <i>Combustion Science and Technology</i> , 2022, 194, 1378-1394.	2.3	7
82	Wavelength-Modulation-Spectroscopy Diagnostics for Characterizing Metallized and Halogenated Fireballs of Energetic Materials. , 2020, , .		2
84	Combustion performance of composite propellants containing core-shell Al@M(IO ₃) metastable composites. <i>Combustion and Flame</i> , 2020, 219, 33-43.	5.2	21
85	Sensitising the micron-sized aluminium/potassium periodate thermit. <i>Journal of Energetic Materials</i> , 2020, 38, 455-466.	2.0	1
86	Combustion of Nanoaluminum and Magnesium in Fuel-Rich Propellants. <i>Propellants, Explosives, Pyrotechnics</i> , 2020, 45, 724-729.	1.6	12
87	Experimental and model investigation on agglomeration of aluminized fuel-rich propellant in solid fuel ramjet. <i>Combustion and Flame</i> , 2020, 219, 437-448.	5.2	17
88	Effect of RDX content on the agglomeration, combustion and condensed combustion products of an aluminized HTPB propellant. <i>Acta Astronautica</i> , 2020, 170, 198-205.	3.2	37
89	Controllable synthesis of Cu/Al energetic nanocomposites with excellent heat release and combustion performance. <i>Applied Surface Science</i> , 2020, 513, 145704.	6.1	10
90	An effective way to enhance energy output and combustion characteristics of Al/PTFE. <i>Combustion and Flame</i> , 2020, 214, 419-425.	5.2	44
91	Unexpected burning rate independence of composite propellants on the pressure by fine interfacial control of fuel/oxidizer. <i>Chemical Engineering Journal</i> , 2020, 388, 124320.	12.7	51

#	ARTICLE	IF	CITATIONS
92	The Effects of Metal Complexes of Nano-Graphene Oxide to Thermal Decomposition of FOX-7. <i>Nanomaterials</i> , 2020, 10, 144.	4.1	16
93	Energy release behavior of Al/PTFE reactive materials powder in a closed chamber. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	13
94	Core-shell nAl@Fc-Fx nanocomposites with dual function: Combustion and anti-migration performance. <i>Chemical Engineering Journal</i> , 2020, 394, 124884.	12.7	35
95	Fabrication and mechanistic study of AP/nAl/PTFE spherical encapsulated energetic materials with enhanced combustion performance. <i>Chemical Engineering Science</i> , 2020, 222, 115701.	3.8	25
96	Combustion characteristic and aging behavior of bimetal thermite powders. <i>Defence Technology</i> , 2021, 17, 755-762.	4.2	11
97	Force chains based mesoscale simulation on the dynamic response of Al-PTFE granular composites. <i>Defence Technology</i> , 2021, 17, 56-63.	4.2	17
98	Particle burning behaviors of Al/AP propellant with high-speed digital off-axis holography. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 4401-4408.	3.9	19
99	Highly reactive spheroidal milled aluminum. <i>Materialia</i> , 2021, 15, 100959.	2.7	5
100	Characterization of an Aluminum-Lithium-Alloy-Based Composite Propellant at Elevated Pressures. <i>Journal of Propulsion and Power</i> , 2021, 37, 332-337.	2.2	13
101	Effect of Long-Chain Bonding Agent on the Combustion of Composite Propellant and Modification of Combustion Performance Using Nano Additives. <i>Combustion Science and Technology</i> , 2021, 193, 40-59.	2.3	1
102	Effect of Organic Fluoride on Combustion Performance of HTPB Propellants with Different Aluminum Content. <i>Combustion Science and Technology</i> , 2021, 193, 702-715.	2.3	15
103	Progress towards nanoengineered energetic materials. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 57-81.	3.9	29
104	Solid Propellant Scaling Analysis Using Simultaneous Holography and Imaging Pyrometry. , 2021, , .		3
105	Mesoscale study on the shock response and initiation behavior of Al-PTFE granular composites. <i>Materials and Design</i> , 2021, 200, 109446.	7.0	25
106	Atomic-scale identification of microexplosion of aluminum nanoparticles as highly efficient oxidation. <i>Energetic Materials Frontiers</i> , 2021, 2, 40-50.	3.2	14
107	Studies on Aluminum Agglomeration and Combustion in Catalyzed Composite Propellants. <i>Combustion, Explosion and Shock Waves</i> , 2021, 57, 203-214.	0.8	12
108	Dual-sheet interferometric particle imaging for opaque particle size and 2D location measurement. <i>Powder Technology</i> , 2021, 382, 505-511.	4.2	7
109	Molecular dynamics study of sintering of Al nanoparticles with/without organic coatings. <i>Computational Materials Science</i> , 2021, 190, 110265.	3.0	18

#	ARTICLE	IF	CITATIONS
110	Preparation of hierarchical core-shell Al-PTFE@TA and Al-PTFE@TA-Fe architecture for improving the combustion and ignition properties of aluminum. <i>Surface and Coatings Technology</i> , 2021, 412, 127073.	4.8	18
111	Sodium fluoroaluminate promoting the combustion of micron-sized aluminum powder with different particle sizes in carbon dioxide. <i>Energy</i> , 2021, 226, 120393.	8.8	14
112	Graphite fluoride as a new oxidizer to construct nano-Al based reactive material and its combustion performance. <i>Combustion and Flame</i> , 2021, 229, 111393.	5.2	25
113	Investigation on the thermal decomposition of the elastomer containing fluoroolefin segment by DSC, TGA, MS and FTIR. <i>Polymers for Advanced Technologies</i> , 2021, 32, 4880-4890.	3.2	5
114	Enhanced thermal- and impact-initiated reactions of PTFE/Al energetic materials through ultrasonic-assisted core-shell construction. <i>Defence Technology</i> , 2022, 18, 1362-1368.	4.2	2
115	Dynamic Combustion of Functionally Graded Additively Manufactured Composite Solid Propellant. <i>Journal of Propulsion and Power</i> , 2021, 37, 725-732.	2.2	9
116	Establishing the interface layer on the aluminum surface through the self-assembly of tannic acid (TA): Improving the ignition and combustion properties of aluminum. <i>Chemical Engineering Journal</i> , 2021, 420, 130523.	12.7	36
117	Expanding Fluorinated Energetic Feedstock for Fused Deposition Modeling. <i>Advanced Engineering Materials</i> , 0, , 2100710.	3.5	1
118	Aluminum particles with nano-size defects in their alumina shells and their thermal oxidation properties. <i>Journal of Alloys and Compounds</i> , 2021, 874, 159877.	5.5	5
119	Theoretical Study on Heating Process of Micro-Al Particles in Laminar Flame. <i>Combustion Science and Technology</i> , 2023, 195, 1106-1123.	2.3	0
120	Synthesis and characterization of a novel fluorine-containing copolymer P(FPO/NIMMO) as a potential energetic binder. <i>Journal of Fluorine Chemistry</i> , 2021, 249, 109861.	1.7	11
121	Synthesis and characterization of a novel fluorine-containing triblock copolymer as a potential binder. <i>European Polymer Journal</i> , 2021, 159, 110760.	5.4	3
122	Fluorinated graphene improving thermal reaction and combustion characteristics of nano-aluminum powder. <i>Thermochimica Acta</i> , 2021, 705, 179038.	2.7	22
123	Combustion promotion and agglomeration reduction of the composite propellant using graphene. <i>Aerospace Science and Technology</i> , 2021, 118, 106988.	4.8	25
124	Laser-induced energetic material ignition with various fluorinated graphenes: Theoretical and experimental studies. <i>Applied Surface Science</i> , 2021, 570, 151187.	6.1	7
125	Surface fluorination of n-Al particles with improved combustion performance and adjustable reaction kinetics. <i>Chemical Engineering Journal</i> , 2021, 425, 131619.	12.7	17
126	Numerical Study of Micron-Scale Aluminum Particle Combustion in an Afterburner Using Two-Way Coupling CFD-DEM Approach. <i>Flow, Turbulence and Combustion</i> , 2020, 105, 191-212.	2.6	12
127	Volumetric spectral imaging and two-color pyrometry of flames using plenoptic cameras. , 2019, , .		4

#	ARTICLE	IF	CITATIONS
128	Slag Prediction in Submerged Rocket Nozzle Through Two-Phase CFD Simulations. Defence Science Journal, 2015, 65, 99-106.	0.8	5
129	Influence of Polytetrafluorethylene on the Mechanical and Safety Properties of a Composite Modified Double Base Propellant. Central European Journal of Energetic Materials, 2018, 15, 468-484.	0.4	7
130	The influence of different oxidation processes on micron-sized aluminum particles. , 2017, , .		1
131	Bimetal Fuels for Energetic Materials. , 2020, , 183-210.		1
132	Enhancing Micrometric Aluminum Reactivity by Mechanical Activation. , 2020, , 17-44.		2
133	Experimental research on the cook-off energy release of Al/PTFE mixed powder in closed container. International Journal of Chemical Reactor Engineering, 2020, .	1.1	0
134	Iron/aluminum nanocomposites prepared by one-step reduction method and their effects on thermal decomposition of AP and AN. Defence Technology, 2023, 22, 74-87.	4.2	14
135	Variable infrared laser absorption spectroscopy of aluminum monoxide AlO . Journal of Applied Physics, 2022, 123, 124301.	2.3	12
136	Study on the Formation of Reactive Material Shaped Charge Jet by Trans-Scale Discretization Method. Crystals, 2022, 12, 107.	2.2	3
137	Preparation and characterization of multifunctional piezoenergetic polyvinylidene fluoride/aluminum nanocomposite films. Journal of Applied Physics, 2022, 131, .	2.5	8
138	Facile fabrication of metastable aluminum/fluoropolymer composite films by spin-coating and their thermal properties. Journal of Polymer Research, 2022, 29, 1.	2.4	1
139	Preparation of Ni-W/PTFE Composite Coatings on Q345 Pipeline Steel and their Corrosion Resistance in Simulated Oilfield Produced Water. International Journal of Electrochemical Science, 0, , ArticleID:220340.	1.3	0
140	Simultaneously Altering the Energy Release and Promoting the Adhesive Force of an Electrophoretic Energetic Film with a Fluoropolymer. Langmuir, 2022, 38, 2569-2575.	3.5	4
141	Influence of Fluorinated Polyurethane Binder on the Agglomeration Behaviors of Aluminized Propellants. Polymers, 2022, 14, 1124.	4.5	5
142	Combustion characteristics of cross-linked fluorinated polymer supported aluminum/oxidizer microsphere in HTPB propellant. FirePhysChem, 2022, 2, 20-27.	3.4	13
143	Anti-sintering behavior and combustion process of aluminum nano particles coated with PTFE: A molecular dynamics study. Defence Technology, 2023, 24, 46-57.	4.2	4
144	Research on the Impact-Induced Deflagration Behavior by Aluminum/Teflon Projectile. Crystals, 2022, 12, 471.	2.2	5
145	Effect of spherical Al-Mg-Zr on the combustion characteristics of composite propellants. FirePhysChem, 2022, 2, 14-19.	3.4	7

#	ARTICLE	IF	CITATIONS
146	Positive effects of organic fluoride on reduction of slag accumulation in static testing of solid rocket motors of different diameters. <i>Acta Astronautica</i> , 2022, 194, 277-285.	3.2	5
147	Study on the combustion performance of nano/micro-sized aluminum powders regulated by polydopamine interface. <i>Combustion and Flame</i> , 2022, 240, 112027.	5.2	28
148	Combustion and agglomeration characteristics of aluminized propellants containing Al/CuO/PVDF metastable intermolecular composites: A highly adjustable functional catalyst. <i>Combustion and Flame</i> , 2022, 241, 112110.	5.2	35
149	Calcium fluoride promoting the combustion of aluminum powder. <i>Energy</i> , 2022, 250, 123772.	8.8	12
150	Impact Sensitivity and Friction Sensitivity of HTPB Based Propellant According to the Aluminum Content. <i>Journal of the Korean Society of Propulsion Engineers</i> , 2021, 25, 60-65.	0.2	0
151	Explosion characteristics of aluminum-based activated fuels containing fluorine. <i>Defence Technology</i> , 2021, , .	4.2	0
152	Enhanced combustion performance of core-shell aluminum with poly(vinylidene fluoride) interfacial layer: Constructing the combination bridge of aluminum powder and poly(vinylidene fluoride). <i>Surface and Coatings Technology</i> , 2022, 439, 128410.	4.8	7
153	Study on the preparation and combustion performance of Al F composites prepared by a solvent/non-solvent method. <i>Surface and Coatings Technology</i> , 2022, 440, 128455.	4.8	8
154	Ignition and combustion of Perfluoroalkyl-functionalized aluminum nanoparticles and nanothermite. <i>Combustion and Flame</i> , 2022, 242, 112170.	5.2	18
155	Synthesis and characterization of a novel hydroxy telechelic polyfluoroether to enhance the properties of HTPB solid propellant binders. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 648, 129199.	4.7	3
157	Effects of flexoelectric and piezoelectric properties on the impact-driven ignition sensitivity of P(VDF-TrFE)/nAl films. <i>Combustion and Flame</i> , 2022, 242, 112181.	5.2	12
158	On the Use of Fluorine-Containing Nano-Aluminum Composite Particles to Tailor Composite Solid Rocket Propellants. <i>Propellants, Explosives, Pyrotechnics</i> , 2022, 47, .	1.6	7
159	Al-Cu Powder Oxidation Kinetics during Heating in Air. <i>Combustion, Explosion and Shock Waves</i> , 2022, 58, 159-168.	0.8	2
160	Tuning energy output of PTFE/Al composite materials through gradient structure. <i>Defence Technology</i> , 2023, 26, 134-142.	4.2	1
161	Experimental study of Al agglomeration on solid propellant burning surface and condensed combustion products. <i>Defence Technology</i> , 2023, 26, 111-122.	4.2	8
162	Agglomeration in Composite Propellants Containing Different Nano-Aluminum Powders. <i>Propellants, Explosives, Pyrotechnics</i> , 2022, 47, .	1.6	7
163	Novel Segregated Solid Propulsion System with Separately Stored Fuel and Oxidizer. <i>Propellants, Explosives, Pyrotechnics</i> , 0, , .	1.6	0
164	High energy Al@Ni preparation of core-shell particles by adjusting nickel layer thickness. <i>Vacuum</i> , 2022, 205, 111344.	3.5	3

#	ARTICLE	IF	CITATIONS
165	Mesoscale simulation on the shock response of functionally graded Al-PTFE material. <i>Journal of Physics: Conference Series</i> , 2022, 2321, 012025.	0.4	0
166	Dynamic Combustion Process of Agglomerated-Reduced Propellant with Organic Fluoride Additive. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
167	Perfluoroalkyl-Functionalized Graphene Oxide as a Multifunctional Additive for Promoting the Energetic Performance of Aluminum. <i>ACS Nano</i> , 2022, 16, 14658-14665.	14.6	18
168	Chainlike products from the reaction of aluminum nanoparticles in HF atmosphere: an atomic insight. <i>Journal of Materials Science</i> , 2022, 57, 16948-16964.	3.7	3
169	Condensed Combustion Products Characteristics of HTPB/AP/Al Propellants under Solid Rocket Motor Conditions. <i>Aerospace</i> , 2022, 9, 677.	2.2	5
170	Fluorocarbon nanosheet@copper oxide microspheres: Simultaneous promotion the decomposition of ammonium perchlorate and ignition performance of aluminum. <i>Journal of Physics and Chemistry of Solids</i> , 2023, 172, 111062.	4.0	1
171	Development of polyurethane-coated aluminum powder using solvent evaporation induced method. <i>AIP Conference Proceedings</i> , 2022, , .	0.4	0
172	Combustion mechanism of fluorinated organic compound-modified nano-aluminum composite particles: Towards experimental and theoretical investigations. <i>Chinese Journal of Aeronautics</i> , 2023, 36, 334-349.	5.3	0
173	3D particle sizing, thermometry and velocimetry of combusting aluminized propellants. <i>Combustion and Flame</i> , 2023, 247, 112500.	5.2	4
174	The reaction mechanism of Al NPs/PVDF high energy fuel: A ReaxFF MD and DFT study meshing together laser-ignition experimental verification. <i>Fuel</i> , 2023, 334, 126730.	6.4	4
175	The evolutionary process and damage characteristics to the target of jet flame produced by the Al/PTFE mixed powder in a small caliber projectile with through-hole. <i>Waves in Random and Complex Media</i> , 0, , 1-22.	2.7	0
176	High Performance nAl@CuO Core-shell Particles with Improved Combustion Efficiency and the Effect of Interfacial Layers on Combustion. <i>Journal of Alloys and Compounds</i> , 2023, , 168879.	5.5	0
177	Comparative study on aluminum agglomeration characteristics in HTPB and NEPE propellants: The critical effect of accumulation. <i>Combustion and Flame</i> , 2023, 249, 112607.	5.2	9
178	Additively Manufactured Micro- and Nano- Al/PVDF Ignition Sensitivity and Burning Characterization. <i>Propellants, Explosives, Pyrotechnics</i> , 0, , .	1.6	1
181	Capsule structured Al/FeF ₃ /AP energetic microspheres with enhanced combustion performance and energy release efficiency by a microexplosion reaction. <i>Fuel</i> , 2023, 340, 127546.	6.4	9
182	Improved Combustion Performance of Fluororubber-Coated Micro-Nano Composite Aluminum Powder. <i>Metals</i> , 2023, 13, 556.	2.3	0
183	In-situ constructing nano ternary Ni-P-Cu alloy shell on the micro-aluminum surface: Enhancing its ignition and combustion performances. <i>Fuel</i> , 2023, 342, 127874.	6.4	5
184	Imaging the combustion characteristics of Al, B, and Ti composites. <i>Combustion and Flame</i> , 2023, 252, 112747.	5.2	4

#	ARTICLE	IF	CITATIONS
185	Insight into the precise catalytic mechanism of CuO on the decomposition and combustion of core-shell Al@AP particles. <i>Fuel</i> , 2023, 346, 128294.	6.4	12
186	Oxidation and combustion studies of polyacrylamide constructed high energy aluminum-based reactive fuel. <i>Combustion and Flame</i> , 2023, 251, 112580.	5.2	3
187	Analysis of agglomeration behaviors of aluminized composite propellants. <i>Case Studies in Thermal Engineering</i> , 2023, 44, 102852.	5.7	3
188	Laser-Induced Ignition and Combustion of Single Micron-Sized Al-Li Alloy Particles in High Pressure Air/N ₂ . <i>Aerospace</i> , 2023, 10, 299.	2.2	5
189	Enhancing the reaction efficiency and ignition performance of core-shell Al@HMX composites by precise catalysis of graphene-based carbohydrazide complexes. <i>Fuel</i> , 2023, 347, 128442.	6.4	4
190	Mechanistic understanding of the participation effect of carbon in the combustion of PTFE/n-Al: Combining experimental verification with reactive molecular dynamics simulation. <i>Fuel</i> , 2023, 348, 128572.	6.4	0
191	Laser ignition of solid propellants using energetic nAl-PVDF optical sensitizers. <i>Combustion and Flame</i> , 2023, 254, 112848.	5.2	5
192	Manufacturing superfine AP by milling in a lab-scale resonant acoustic mixer (LabRAM). <i>Journal of Energetic Materials</i> , 0, , 1-13.	2.0	2
193	Preparation of quasi-core/shell structured composite energetic materials to improve combustion performance. <i>RSC Advances</i> , 2023, 13, 17834-17841.	3.6	3
194	Study on the safety of modified aluminum powder in 3D printing process. <i>Journal of Physics: Conference Series</i> , 2023, 2478, 032081.	0.4	0
195	Optimization of Al/PTFE applied to detonation network used for micro shaped charge warhead.. <i>Journal of Physics: Conference Series</i> , 2023, 2478, 122054.	0.4	0
196	Predictive combining multiple variously hybridized low-dimensional nanocarbons in a single additive for nano-sized energetic materials performance enhancement. <i>Journal of Physics: Conference Series</i> , 2023, 2478, 032042.	0.4	0
197	Simulations on the oxidation of Al-Mg alloy nanoparticles using the ReaxFF reactive force field. <i>Materials Today Communications</i> , 2023, 35, 106180.	1.9	0
198	Study on exothermic effect of surface modified porous aluminum. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2023, 671, 131649.	4.7	2
199	Construction of Hydrophobic Ammonium Perchlorate with Synergistic Catalytic Effect Based on Supramolecular Self-Assembly for Synchronously Catalyzing the Thermal Decomposition of Ammonium Perchlorate and the Combustion of Aluminum. <i>Langmuir</i> , 2023, 39, 9514-9525.	3.5	0
200	Oxidation reaction kinetics of HTPB-boron carbide/polytetrafluoroethylene formulations as a solid fuel. <i>Fuel</i> , 2023, 352, 129042.	6.4	6
201	Effects of Al/Ni molar mass ratios and addition of CuO on the microstructure, mechanical properties, and energy release behavior of Al-Ni composites. <i>Ceramics International</i> , 2023, 49, 30565-30578.	4.8	1
202	Sintering and oxidation characteristics of aluminum nanoparticles coated with hydrocarbons: A ReaxFF molecular dynamics simulation study. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2023, 483, 129060.	2.1	0

#	ARTICLE	IF	CITATIONS
203	Thermal decomposition and combustion behavior of the core-shell Al@AP composite embedded with CuO as a catalyst. <i>Fuel</i> , 2024, 356, 129587.	6.4	1
204	AP and nFe ₂ O ₃ synergistically improve the ignition and combustion performance of aluminum particles. <i>Journal of Thermal Analysis and Calorimetry</i> , 2023, 148, 11669-11681.	3.6	2
205	“Litchi-like” metastable Al/Ti/CuO micro-nano composites with enhanced combustion reaction and their energy characteristics. <i>Combustion and Flame</i> , 2023, 256, 112947.	5.2	2
206	Combustion performance and mechanism of DAP-4/Al composites with WO ₃ nanoparticles. <i>Journal of Energetic Materials</i> , 0, , 1-17.	2.0	0
207	Probing on Mutual Interaction Mechanisms of the Ingredients of Al/CuO/PVDF Nanocomposites. <i>Langmuir</i> , 2023, 39, 13850-13862.	3.5	0
208	The Effect of Organic Matter from Sewage Sludge as an Interfacial Layer on the Surface of Nano-Al and Fluoride. <i>Molecules</i> , 2023, 28, 6494.	3.8	2
209	Enhancement of the energetic performance of Solid Fuels with Metal-Fluoropolymer Additives. <i>FirePhysChem</i> , 2023, , .	3.4	0
210	Effects of Al content and particle size on the combustion characteristic of hydrogen peroxide gel and micron-aluminum mixtures. <i>Acta Astronautica</i> , 2023, 213, 464-477.	3.2	0
211	Controlling the combustion and agglomeration characteristics of solid propellants via new micro-unit composite fuel Al@AP. <i>Combustion and Flame</i> , 2023, 258, 113107.	5.2	3
212	Surface Fluorinated Metastable Aluminum Microspheres: Improved Ignition and Anti-Aging Properties of Aluminum Powder. <i>Combustion Science and Technology</i> , 0, , 1-18.	2.3	0
213	The combustion-supporting mechanism of fluoropolymers on aluminum particles studied using reactive dynamics simulations. <i>New Journal of Chemistry</i> , 2023, 47, 21055-21066.	2.8	0
214	Screening of metal fuels for use in composite propellants for ramjets. <i>Progress in Aerospace Sciences</i> , 2023, 143, 100954.	12.1	4
215	Aluminum particle agglomeration characteristics and suppression method during the combustion of aluminum-based solid propellants: A review. <i>Propellants, Explosives, Pyrotechnics</i> , 2024, 49, .	1.6	1
217	Revealing Al–O/Al–F reaction dynamic effects on the combustion of aluminum nanoparticles in oxygen/fluorine containing environments: A reactive molecular dynamics study meshing together experimental validation. <i>Defence Technology</i> , 2023, , .	4.2	0
218	Fabrication and energy release study of metastable intermolecular composite microspheres with enhanced combustion performance. <i>Ceramics International</i> , 2024, 50, 10651-10660.	4.8	0
219	Perfluorotetradecanoic acid-directed precipitation of P(VDF-HFP) around nano-Al for the improved ignition and combustion characteristics. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2024, 684, 133141.	4.7	0
220	A new fluorocarbon adhesive: Inhibiting agglomeration during combustion of propellant via efficient F–Al ₂ O ₃ preignition reaction. , 0, , .		0
221	Effect of Fluoroalcohol Chain Extension Modified HTPB Binder on the Combustion Performance of Aluminized Propellants. <i>Crystals</i> , 2024, 14, 258.	2.2	0

#	ARTICLE	IF	CITATIONS
222	An approach to distinguish chemical and kinetic energy of reactive materials: PTFE/LiF as an inert substitute to PTFE/Al. Propellants, Explosives, Pyrotechnics, 0, , .	1.6	0
223	Mesoscale model for computational simulation of reaction driven by dielectric breakdown in metal-polymer propellants. Journal of Applied Physics, 2024, 135, .	2.5	0
224	Construction of Al@PTFE composites with excellent ignition and combustion properties through mechanical and thermal activation. Journal of Alloys and Compounds, 2024, 987, 174178.	5.5	0